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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 09/987,376 | 11/14/2001 | William D. Wilber | A8241 | 6692 |

7590 07/08/2005


SUGHRUE MION, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037-3213

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| EXAMINER | |
| JONES, STEPHEN E | |

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| ART UNIT | PAPER NUMBER |
| 2817 | |

DATE MAILED: 07/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------|-------------------------------|---|
| Office Action Summary | Application No. 09/987,376 | Applicant(s) WILBER ET AL. | |
| | Examiner Stephen E. Jones | Art Unit 2817 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 64, 66, 68, 71, 77 and 78 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 64, 66, 68, 71, 77 and 78 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 64, 66, 68, and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishitobi (JP 09148810) in view of Blum et al. and Matsumoto et al. (US 2001/0028287) (all of record).

Ishitobi teaches a dielectric block (i.e. having three directions) triple mode resonator including a shielding on the outer surface (e.g. see the translation section 10).

However, Ishitobi does not explicitly teach a tuning element such as a slot, rectangle void, decreased thickness, or circular area in the outer conductor that is selected to increase or decrease a resonant frequency (Claims 64, 66, 68, and 71).

Blum teaches removed rectangular slot portions (e.g. 72b) of the outer conductor of a block resonator filter.

Matsumoto et al. provides the exemplary teaching of providing circular removed portions in the metallization of a dielectric resonator (e.g. see Fig. 4).

It would have been considered obvious to one of ordinary skill in the art to have modified the Ishitobi resonator to have included rectangular slots (i.e. reduced thickness since the material is removed) such as taught by Blum, because it would have provided the advantageous benefit of tuning to decrease the resonant frequency (see Blum Col. 6, lines 50-55), thereby suggesting the obviousness of such a modification.

Alternatively, it would have been considered obvious to one of ordinary skill in the art to have substituted circular removed portions such as taught by Matsumoto in place of the rectangular portions in the combination of Ishitobi and Blum, because it would have been considered a mere optimization of the tuning characteristics using well-known geometric tuning shapes while providing the advantageous benefit of increasing the resonant frequency (e.g. see Matsumoto Section 95), thereby suggesting the obviousness of such a modification.

Also, since the combination results in the same structure as the present claims, as an obvious consequence it would function in the same manner including tuning of modes independently by the affected/removed area.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the

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unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 77-78 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 24, 25, and 26 of U.S. Patent No. 6,853,271 in view of Blum et al. of record and Matsumoto et al. (US 2001/0028287 of record).

The patent teaches a mask filter assembly, but does not teach the claimed tuning means.

As described above, Blum and Matsumoto teach the specific tuning means.

Accordingly it would have been considered obvious to one of ordinary skill in the art to have modified the patent claimed structure to have included tuning means such as taught by Blum and/or Matsumoto, because it would have provided the advantageous benefit of tuning to decrease/increase the resonant frequency, as detailed in the prior art rejections above.

Response to Arguments

6. Applicant's arguments filed 4/26/05 have been fully considered but they are not persuasive.

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Applicant argues that none of the prior art references address changing one resonant frequency without affecting/changing one of the other resonant frequencies.

Applicant's argument is not convincing because the combination of prior art results in an identical structure to the present invention having a slot or circular area on a side surface of the resonator. As an obvious consequence of the combination resulting in the same structure as the presently claimed structure, the combination would function equivalently.

Furthermore, the new limitations in Claim 77 necessitated a new double patenting rejection that is similar to rejections made in previous office actions.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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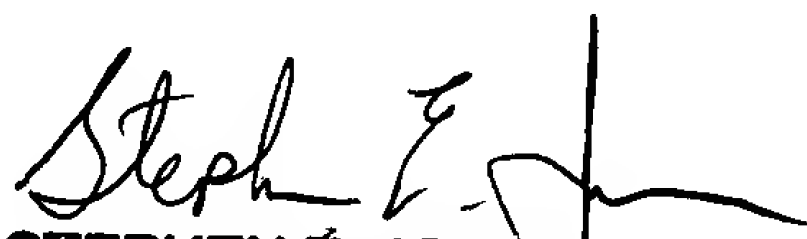
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen E. Jones whose telephone number is 571-272-1762. The examiner can normally be reached on Monday through Friday from 8 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Pascal can be reached on 571-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SEJ


STEPHEN E. JONES
PRIMARY EXAMINER